

CLAIMS**1.** A method comprising:

submitting a print job to a print device;

receiving notification from the print device that a non-optimal condition

5 exists with one or more consumables;

displaying a warning message about a toner color affected by the non-optimal condition;

displaying a visual representation of the print job without the affected toner color;

10 suggesting one or more alternate color schemes to use for the print job;

and

if an alternate color scheme is selected, resubmitting the print job with the alternate color scheme to the print device.

15 **2.** A method as recited in claim 1, wherein resubmitting the print job further comprises:

adjusting the color gamut of the print device according to the selected alternate color scheme.

20 **3.** A method as recited in claim 2, wherein adjusting the color gamut comprises:

accessing a color look-up table that corresponds to the non-optimal condition; and

25 mapping the color gamut of the print device to the color look-up table to replace non-reproducible colors in the print job with reproducible colors from the look-up table according to the selected alternate color scheme.

4. A method as recited in claim 1 further comprising:

presenting print options for selection; and

executing a selected print option, the print options comprising;

canceling the print job;

5 permitting the print job to print with the non-optimal condition;

permitting the print job to print without the affected toner color;

redirecting the print job to an alternate print device;

pausing to permit correction of the non-optimal condition and then

printing the print job; and

10 printing the print job in grayscale.

5. A method as recited in claim 1, wherein the non-optimal condition is a

low toner level for one of a plurality of toner colors in an all-in-one toner cartridge.

- 15 6. A method as recited in claim 1, wherein the non-optimal condition is a

depleted toner color for one of a plurality of toner colors in an all-in-one toner cartridge.

7. A method as recited in claim 1, wherein the non-optimal condition is a

low toner level for one of a plurality of toner colors each located in a separate toner

20 cartridge.

8. A method as recited in claim 1, wherein the non-optimal condition is a

depleted toner color for one of a plurality of toner colors each located in a separate
toner cartridge.

- 25 9. A method as recited in claim 1, wherein the non-optimal condition is a

worn photoconductor.

10. A method as recited in claim 1, wherein the non-optimal condition is a worn transfer element.

11. Computer-readable media having computer-readable instructions for performing the method as recited in claim 1.

12. A method for adjusting a color gamut comprising:
receiving a print job from a host;
checking for a non-optimal consumable condition;
notifying the host if a non-optimal consumable condition is detected;
receiving the print job with an adjusted color gamut from the host; and
printing the print job with the adjusted color gamut.

13. A method as recited in claim 12, wherein checking for a non-optimal consumable condition further comprises:
directly monitoring toner availability by monitoring the level of toner in a toner cartridge.

14. A method as recited in claim 12, wherein checking for a non-optimal consumable condition further comprises:
indirectly monitoring toner availability by monitoring a test patch during a calibration cycle.

15. A method as recited in claim 12, wherein checking for a non-optimal consumable condition further comprises:
monitoring the effect of a step within an electrophotographic process.

16. A method as recited in claim 15, wherein the effect is the change in charge balance present on the consumable.

5 17. A method as recited in claim 16, wherein the consumable is a photoconductor drum.

18. A method as recited in claim 16, wherein the consumable is a transfer element.

10 19. A method as recited in claim 12, wherein checking for a non-optimal consumable condition further comprises:

monitoring the number of rotations made by the consumable throughout the life history of the consumable.

15 20. A method as recited in claim 19, wherein the consumable is a photoconductor drum.

20 21. A method as recited in claim 19, wherein the consumable is a transfer element.

22. Computer-readable media having computer-readable instructions for performing the method as recited in claim 12.

25 23. A method comprising:
receiving a print job;
checking for a non-optimal consumable condition; and

adjusting the color gamut of a print device based on a non-optimal consumable condition.

24. A method as recited in claim 23, wherein adjusting the color gamut

5 further comprises:

accessing a color look-up table that corresponds to the non-optimal condition; and

mapping the color gamut of the print device to the color look-up table to replace non-reproducible colors in the print job with reproducible colors from the look-up table according to a selected alternate color scheme.

25. A printer comprising:

a consumable component;

a monitoring device to detect a non-optimal condition of the consumable component, the non-optimal condition affecting a toner color;

printer control logic configured to send one or more visual representations of a print job to a host computer for display, each alternate visual representation illustrating a selectable alternate color scheme that excludes the affected toner color;

the printer control logic further configured to adjust the color gamut of the printer according to a selected alternate color scheme and output the print job.

26. A printer as recited in claim 25, wherein the printer control logic is further configured to provide options for managing the non-optimal condition, the options comprising:

25 canceling the print job;

permitting the print job to print with the non-optimal condition;

permitting the print job to print without the affected toner color;

redirecting the print job to an alternate print device;
pausing to permit correction of the non-optimal condition and then
printing the print job; and
printing the print job in grayscale.

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27. A printer as recited in claim 25, wherein the consumable component is an all-in-one toner cartridge comprising a plurality of different colored toners.

28. A printer as recited in claim 25, wherein the consumable component is a plurality of consumable components and the monitoring device is a plurality of monitoring devices, each monitoring device configured to monitor the condition of one of the plurality of consumable components.

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29. A computer coupled to a print device, the print device comprising a consumable component having a monitoring device configured to detect a non-optimal condition of the consumable component, the computer comprising:

a printer controller configured to send a print job to the print device;
the printer controller further configured to receive information from the monitoring device and provide options for managing a non-optimal condition, the options comprising:

canceling the print job;
permitting the print job to print with the non-optimal condition;
permitting the print job to print without a toner color affected by the non-optimal condition;

redirecting the print job to an alternate print device;
pausing the print job to permit correction of the non-optimal condition and then permitting the print job to print;

permitting the print job to print in grayscale; and
visually presenting the print job in one or more selectable alternate color schemes, each alternate color scheme excluding the toner color affected by the non-optimal condition.

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30. A computer as recited in claim 29, wherein the printer controller is further configured to adjust the color gamut of the print device according to a selected alternate color scheme and resend the print job to the print device for printing.

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31. A system comprising:
a monitoring device configured to monitor the condition of a consumable component;
a printer controller configured to adjust the color gamut of a print device based on a non-optimal condition of the consumable component.

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32. A system as recited in claim 31, wherein the printer controller is resident in a computer.

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33. A system as recited in claim 31, wherein the printer controller is resident in the print device.

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34. A system comprising:
a computer;
a print device coupled to the computer, the print device comprising a consumable component;
the consumable component comprising a monitoring device configured to send information about the condition of the consumable component to the computer;

the computer configured to visually display a print job based on the condition of the consumable component;

the computer further configured to look up one or more alternate color schemes based on the condition of the consumable component and display the print job

5 with the one or more alternate color schemes;

the computer further configured to send the print job to the print device to be printed with an alternate color scheme.

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